COMPACT LOW COST CURRENT SENSOR AND CURRENT TRANSFORMER CORE HAVING IMPROVED DYNAMIC RANGE

Abstract of Disclosure

A current sensor and current transformer for monitoring electrical current is provided with a magnetic core having a mixture of magnetic materials to provide a low cost design in a compact configuration with an expanded dynamic range. The mixed material core can be fabricated either from stamped laminations or from coil stock and may include an air gap for activating a magnetic flux sensor. Multiple core configurations, including Figure–O, Figure–C, and Figure–8, having mixed material construction are disclosed and offer advantages over non–mixed material cores where dynamic range and frequency response characteristics are a consideration.

Figures

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